

RECORD

- Her - is place becoming (March 11th 1967 - March 1th, cold) (58714 - 50414) Attention Talapati FD-5 agarerences accessors and the contract of to a sould dealer tot will be seen Alle of the same of the With severe constitution of the contract of th TO-DE LOCAL CONTROL OF STREET, Section Land Continue from Vargation 41679-41650 V1432+136 V-3-5/ -5/14-TGJL) CHILD STREET HOUSE 11-13 and the second of the second o The matternature 474-341-5 The section of the market and and almost adopted TOTAL STANDARD OF THE PERSON NAMED IN COLUMN TO A PERSON N Link material are constant

Washington 25, DC- USA

F. R. Forberg

Collection and Field Note Book

Na. 60

(March 10, 1961 - March 24, 1961)

(41456 -- 41722)

| Ochu-Kauai | 2-3 4-17 |
|--|-------------|
| Specimens collected 41456-41466 | 2-3 4-17 |
| | 5-06 |
| Molokai 2 | 7-20 |
| Honolulu-Maui flight 2 | 5-27 |
| Maui 2 | 6-63 |
| Specimens collected | |
| Kuls Pipeline 41479-41480 | |
| | 8-39 |
| Auwahi 41497-41518a 4 | 245 |
| Kailum Stream 41519a-41520a 4 | 4-45 |
| Waikamoi Stream 41524a 4 | 6-47 |
| The second secon | 6-47 |
| Kapoho House Lots 41533m 5 | 0-51 |
| Coast south of Ki Flow 41534a-41535a 5 | 0-51 |
| Kalapana Beach 41536a-41538a 5 | 0-51 |
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| lavaii | | Pages |
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| Kulani-Mauna Loa Hoad | -41539a-41540a 41541a-41550a | 94-95 94-95 |
| Hoad to Kulani Prison C | amp 41551a-41564s | 96-99 |
| Road from Hilo to Kulan | 1 Prison Camp 41565a-41570a | . 98-99 |
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| Savanna btwn Hilina Pal | i and Kipuka New 41589a-41591a | 108-109 |
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| Kealehahuan Kai | lua-Hile, | 192 to 2-10 |

Washington 25, DC. USA

| riget | | 2 | CHEN |
|--|----------------------------|--|---------|
| 56-46 C6-46 | -12617-F1250# | *** KIROS NOJ ANISH-INS | £;£ |
| 66-96 | emperates of | d to Kniest Prizon Co. | From |
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| 1101-86 | NST1-415838 | dealest hades and h | ici |
| 100-101 | | | 112 |
| 90(+10± | and Kiputa Ausertification | numer bears Stiffen 1915 | VICT |
| 108-109 | 1790 feet | Taylor book Lat with Taylor of with William | EII. |
| YET-USE | 01014-307/1 | in Read Start Lote. | 38 |
| 711-311 | 11611-11620 | | di. |
| 146+141 148-145 | SEdZA-FSAZ. | Trace of Mark Laws Thou | 100 |
| 108-149 166-167 166-167 | #1036 61641 61641 | when the second accounts the second s | EI W |
| 170-171 172-175 185-151 185-151 | | talalari on the base of the tale of tale o | を表現を |

F. R. Forsberg.
Field note book # 40
Beginning with
41456
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Take recorde. Japanese Vieter Corp.

famples of heat sent to hobably getella scopped . Is hobably mereasely by tern flows. Two later mereasely by clay layer?

Morely 10 - flight from
Horolula to Kawai. 600 vm.
Only about half of the
Ewa Coral Plain braws from
still in frest. Refrings is
actually in Barbers Point.
forme bad erosion, perhaps
bulldozen erosion, cm
birst of main vidages
corning down bel. Ewa and
manahuli

Kanni- flatson cast side are all in sugar care plantations. Mango trees in quelches. near Filme.

Kats tells me That there is front in Kilohana Crate, that has probably not had cattle in it.

also says there is Pisonia inermis at 3510-4000 on Pour Waawaa, Aavaii. fays there seam to be 4 prisonias in H9. (2 Ceoples, no with loss petiolate, other sersils.

Sam Patterson - says most of bauxite wees me under came or parture, with solid growths of brenden rain brest and some bauxite under behing shahami bog. Bauxite developedon old flow skops. Knows a when where 2 think buries part layer,

Jahn - Kavai 2 1961 Hawaiian Dr. Mar. 10 - Round 70/1, Honoluly 41456 bambusus mexicana small try 4 m. tall, a fow teams with established on brushy slope hours leaflets slightly Defrenate at case; blowers white Mar. 10 Manoa Cliff Trail in degraded bon prest stranger, sterile. 57 Tions planted tree, sterile. 58 Elsevearpus pia ted should, pls. white 5'-4 parted. 59 Prychotria (Strausia) hadrang occasional to common sterile shows. melast. shows. Ils. white 4- 5 parts! Paychotria (Straunia) mainiana shoul 1,5 m. tal. steril. Lia Pryshoting hexandra Mar. 11 Head of Kalilan Valley, east of tookout ?900 m. small tree 5 m. tall, stail; 62 myrano - leaver appearing chlorotis. edge of degraded metrosideros front 43 Next or a granadences vas insularis that the prostrate, light green, bank at roadside in cloud fort flo. yellow; built red. 64 feativola ,900 m. mar. 11 - Kalalan Lookout, lead of Kalalan Valley shoul 3 m, talf, ered, 64 Leaevola - Guit black. edge of met videros bonest shoul 2,5 m. tall, 65 Coperana edge of metrosideror front back of chiff fruit immalure. should 1.5 m. tall; flo dark purplioutside, edge of elibbia evet fore it green inside. ctol. m (1.14)

mar. 11 Poal w. of Liline Big ravines with landamy * lowland ferent. Lower stapes of first range - open landarus fred inequalar, justing.

Just west of here - exposure I. p.y. of gray clay with bousite under a ned weathered flow with bourite, they sever affect thie's 30 down is a black platy layer. (sample not sent to Denver). Clays all way down. gray clay is buried swamp clay. Ulpinia speciosa lines road in places. Malastoma abundant. Princapples.

Low ridges wooded with open woods, with gleicheria. Much planted Crevarina, Jeville rugerid jambolana, anaucario; han around Falaber sugar can on lower elope, frinantifle above. Hanapepe Jule - walls coveredly Leucaena serul - some him (Elevel + above), o punta, Kiame opiama forest fratches. Begand Harappeles soil very red. open liance fruit on savanna pasture. Waima R Thin fewerena on walls of sanys

al-Wainsa.

the Good hera forest at corbont acain to all ata & grevaller Hanty in it, but not in soloto. Enzion around nino. Tibouchina along road above Lookout. Very little lehra. Atyphelia abundant along word. up a mile or so much Tranting - Ewealy stress, arguery Cherohae rose astablished. fore houses. Podonela common. Lebra becomes mue abundant also other matire have around PMR establishment Pracuera. But still sour mostly broa. Rubus abundant. Kokee Parle - Fehra borest.

Pit in flat area in Kohel
stream drainage at about
(Carrys Ten Rd.) in a mottled
clay and goethite mister
somewhat hardened into black
ironstone. Ground water podyol?
(sample). Kooks much like
profile in Ivory Coast (deep jix).
Rehnaforest with many,
pleanted exotics.
Dirin ridge have bea.
Kalplone Rhad - bora gives way
to Johna somewhat above
Kokel. Much Rubus.

(99-MF air photos, show bog areas in alakai hvany Much dahua forest flatteney by Hurrican Day. La hug Macanni has very thin heat, hard rock. o'atcher franther in alakai Swamp heat up & " l'atterson got about 8 peat cores with hand augus. (On frames K1-58 + K1-33). Photos show a striking mosair of boy & forest . } Bogs underlain By a white Clay - largely halainite 5. Probably much of this underlain by material like that in Kokee fit. Lehua Macanue much chin Than other bogs. Rent 1-2").

Frest nother open and degraded in most areas, thick undergrowth with fribus.

Kalalan Lookout - clear day vidges and steep slopes for rather badly avoded. Forver slopes with semb brukui in qulcha. Valley bottern frated. Cliffs

friented at top and when 1/2 to 13, lowersteeper harts almost bee but grassy. a with this scrub. foothout surrounded by lehna front - some gleichenia. front 10 415/m. all, quarted not very mossy. Canoby rather open. moderate undergrowth, some Rubus. attryruin abundant. Nordyer acro on ground. Caroly open but trees elosely spaced, small average 8-15 cm. some largers to 20-30cm.

feels road eart of lookout thotos of ward and of plateau back. four Kehno great. Head of valley here has cliffes thinky wooded from top to bottom.

End of word is in cloud forest, mainly lahua, on deep heaty layer overlying day bed (photos begin roll 2) Chotos in frest, status to 10 m. Rome Cheirodendra. Astelia (a very small slender one) on the trumbs.

Tibouchina down as for as Pru Ka Pake.

Amall godels that Kokee
Pd. crosses hos grassy
upser slopes sep. on west
more brushy on east, sep.
with fenceene, telm, cactus.
Engthring common locally.
Gestob bottom Isiaave Serraena ferest, much Plueber
in very bottom.

Road & Wahiana sugar care. They alware a gulch wooded up. will Engenia curvini Wine sugar. I am left to Thain place. Through gate then frastine. Leand gate. Hill & nt. with hoa freet. I landed Casuaring, grevilles on some slopes. Acasia confusa and Evenly store, a Melalevan with very small leaves. albiggia. Waiwi. Uling road an almost completely exoting frest. fact reserving. much Glerchenia. some lohna, then algunded leany great, some how.

Bog - there celments
colombelely dead, fleichenis
and low breaken left
with standing dead trushs,
much figer aliver cerum
thuch, he is enting more
that trees of frame forest
Leavely abundant.

Bog cover about 20 mes.

general level of vegetation.

About 3-4 dm.

Matrosideros

a lesechema lin.

a Byertrodium cernum.

a Physicospina

o Golfelia

o Chamolendan

on Wachen and

c Suplinding multipaine

Peleg

a Styphieles

1 Viole

e Carer

al Onestolus

a Eugenia y hoolemenses

X & Carpation of

a Wilistroemo y

I was

n Imilax

Scattered through bog are larger shrubs of metrocher, Cheirodendon Engenin, Poles, Cobe Cic Myssins Hez.

heattered a mall foots and is regular winting water

In me sports, expecially town or wildy mer dominated and I Phymetospins & gass.

Jantel down from Kabales Enterena Hour. Engineen Currier, Hilisons til planted Cucalyptus, ite.

we extension of Itanjan Range routh shops switch grass and thin wrods, scattered trees, when stopen glaicherin. I wanted trees the flaicherin. We of this Hibiseus Vilcaccus fandamer. Fower shopey planted curalyptic, forest.

files to Kapaa —
Hills beyond Hanamander
Badley broaded, wastly
covered by them seems write
acattered trees more worded
on lower slopes. Bluffer and
ledger grany. Huch
red clay expressed in.
quest eversion seems.

1961 Hawaiian Is. Kauai 41479 Pelea visible de virure shoul im tall. buds greenich white occasional showly im all, flowers 742/les anomala H. KA. white. oriasional Mar. 12 - west slope nonorkange. above Opackan streum. old tree 12 m. tall 4 dm dbh 75 Ba Munroidendra racemorum with thick branches. in secondary freed on destromanon, glossy steel slow on immatus fruit; trids unopened. War 12 - ridge east of Hanalei Valley shrub 1 mtal, sterilo. ? 6a Wilsstroemin in boggy y sparse low preston white clay should I m. talf, decurately 77a Jourdis terminales o, madraghy diraneately transled; in boggy sparse er plowers dull purple outside, frest on white day erect, armatic, flowers 79 ageratum boustonianum bright lavender purpo. abundant on mondriely

Harry hale

Ruchandie

Whaverd into navin

Eugenia malaciona becomo

dominant- and the way

fruhmi - on side rlope med Pandanus, Prislium program of the Elis Prislium Little gelich Elis Prislium Little Le Learn abundust agricultural a learn abundust agricultural regetations, Trees here & 2 1/3 dm. olly + 15 m. Tall, I husely to 15 m. Tall, I husely meerforing a frely lain, meerforing a frely lain, meerforing a frely lain, mills the special and services.

Revive filled with han and journ plan Flow slopes pineopple of care technical Engine mango, planted Engine mango, sented Engine mango, since feveran Francisco. Planted acalyptins.

Road around Kapus to Namele Flow ovalying old soil - chanced worth in soil at contact.

Peneable beelds - quelche between billed with bugening enemy bills with bugening enemy.

Itills on left - vilger grang.

Robe lovely is densely moved.

Wood in lower valley mostly favoralem lite samener han Pordum lite samener headquit. Mango quare Molora Beach Pasture on stopes Word in ravines gravillea so, granted abound antly (ned fly) Then done on flatour distance flow slopes. Truff come some distance to it, said to have boken three a cred reaf. Kilanea.

Kalina V. bliffe wooded with hay, bala. Ergens cumini. These, with mile, casuaring etc. in flow some grass. Camoring on bloffs to u.w. forme pasture with gume to bush some penerpples. they mits inland densely wooded oxcept to area I gleichenia on slope. I low slopes in posture lower ones frenegate or parture. Nows of Eucaly Juties or Eugenia aumin along roads. Juava and bran in thickety. send frandamer.

Hanalei V. Flat bottom former tree upper wooded Extensive has food on nollay of other of an larvey a slope.

Caetures on east have been wedd to langola. I det. Cast stopes steep, faitly gleichening, partly thickets of grava stantery quara Carlylus, Pendances, and, above fruit reserve boundary some letina.

ageratum krustinianun debundant along east ridge. Well up on sloping blats there is lettera free it in which the trees are mostly dead or dying. Thick low brush and Flerchenia. an any of white clay 15.11 leek on which is an open low be har 3-5 m. tall with much gleichenia. Thin peat or much layer 3-6", M.H 3.8 au. Patterson. Forter like a bog but wit it larger Trees. les areas, a four ares or 100 of more in societ wealler on the feat sloper but ravines.

Well above this on red soil is further broken drawn letina forest, the fivery tall stender Fritzhandia southered through and I urge trees dead. small etipliztic letria m most of trunks sending down norts like a strangling frig. Cluster of small astelio on them, also Claphoglossum. quite a few photos) Kord were along ridge arough cloud forest, fredominantly Cehran but very rich. Few dead trees. at and of road wice alread of some isotated flat glatean-like wear. Here is a somerny dead trees Mananas on deep gretches even here. Few palms on stuf stopes Rather Deeply weathered nad- son to red soil, a perspect. Very intgular canopy. Some staghan.

Photos across Handi V. of secondary word + generalesia

Bluffs west of Hanalei coursed by landamin frest and in more entrosed place by Leaevola. (Thater) " less expresed by how, query. Casaquere. Lower slopes beyond wainish. grassy with smallered rounded trees. 15 each forest of Carraine norming Cros, aranconia Maena - Han to ryles with Carrains, quara on flats. Cliffs with Bidens Enthermorely in blown gran, small shown. prochets of word in girque litre valleys. Yandamis on love slope Kunus also. landamis a tro up os high ridges This consistends to pile grass on dryon clips and delyn

Man. 17 - flight felie to Honolulus at end of print directly in line with number, the beach of the beach shows excellent wind striation.

Mas. 14 Honolulu- Marie flight about its of the Blom of Deamond Head Crater and fran of love sloper are de noty worked, Outside stoper only very slightly regulated, mortly toward Chotos of Koho Head area. Motobrain right apparently a march back of second long beach from west end, surrounded by hiant foot on flat. of ear, with considerate red erosum sear. Mornomy sand strif largely revegetales ly beave? froit orles stopes of raviner se. of it alkening considerable grass with red sears and reattered small trees or busher or me woody vegetation at all. most of upland flat generally the whichert worth, regitation is an a techer sloter, but mot consistent. floter up to fact woloha grassy cut by worked navine Interluves wooded

mary

26

upward. Cliffs more and more worded sailward. except talus at bout of cliffes which is worder. Cart moloria mostly

cloud covered. Lower frait Talley visible, shallely and inequelaly worded.

otherwise grassy. eliffy that war aux falawa.

Ridges n. of theritans slaws some erosion of low slopes green, queleles dy and

+ areely worked. Amall ised grang.

West Main - Flow slope cultivated, quelines wooded, but lower frants only spacely so a motor west side. Upper parts of low slope granny up very tright on mow. side Guildres on north side very deels worded excelt non months. How slopes bright grain, and pasture. Cliffes thinly regetated On the Kalulin soo

caro ques up & break in sloted. Tood comes down are rather trave comewhat eroded bells, valleys and ravines in them wooded. Much Keave fore 7 Back of Kalului on I thomas, next of inthomus cane, some nour of tree along roads, trees arrend

Mani - Wailuten D Jas Valley by taxi. Planted Casuaring in Erver sloper - mixed wood of Persen, aleuntes, Engeria cumin, Lamarea, Melia mangifeng etc. in valler In carpor stoper stope are grassy les steels aleunites in little hunging valleys and in me quick totterns uppervet slipes. ridges, elfer evouded, but rather sparsely. up in walley gund soul on lower slokes are the hubin which her fells

Mar. 14 - Wailuken - Kahulun patcher of briance, brildings. ford with her few marsh. Weed patcher.

May. 14. Kalului-Olinda. Warkamoi 8:30-12:40

Plantations on level ground of Jathrons and up lower slopes of Haleakela. road lined with gravilles Sawanes, Eugenia, etc. at first. not on slopes. knowner filled worth Lutine, Quera, Longaene, cactus. Puhalani. Jet. Pt. 37 - Pt 40. Pineapple fields some posture Encalypting, Jensen, garriele Makawas, tum on 10 39. alore Mulecura garages pasture with grately of Euralysten fresent. evith quain undergrantle Road lined by & globuler. Olinda Prisan Camp. gone begins stretch of pasture, rome

gillen, var, tomertosa.

Careful ecomination of

Korthalsella platyphylls, a leafler

Just at first sharp tun

in road Clermontin of, may

be seen strought ahead - obling

Cheirodendron may yill

levanthracions parasite.

SU few other native plants. Then the road enters a forest, at first mostly planted, Cupressus macrooks and Encalyptus, the changing at once to native montain rein fruit - le hua fruit with strong admirtue of hos and Chardendon los Drive for about a mile through excellent med of this character I intersection with road of Waina wir pump

Stop has and proceed in fort down word toward Pense trees at entrance are belong Cherrodendron several small trees muchid on left, Amall aboteur beneath trees on both side. Very fine - leafed dangs show immediately to night of entrance stypholic can. Senate leafed shoul on is Browniania. apposite it, on left, Coproma tree with namow leaves they back acaus hos To the left of the want the frest has been cleared along the gold line Rubin of.

thouse of a dender should or night quest below feling dominat her.

Off the trail the undergrowth contains a profusion if ferns, ind several thelypton, (2) cystheorder selable etc.), halle Thyrum for Colotum a very large lave.

securing Eperation Mertera astelia Polyprolon

mari

Chruly induly letca 2 mg. Varvassainia, Columna pop Myrsing Patronea) spl. Hymerophyllum on trestrantes Camben - alyxia, Imilax. Henry you of. Vaccinium cal. Goraldia term. vas cordata (Gerambles), Kulous sandeviceusis (spinsless), Cyrtandra of endifolis, Clermontes of. Cryanea of. (large ers. spinnerhais)

your place & going frest to left 50 before but hely 2 Alotos in opening with twenty after left gonfdia hillationedie at turn, transinetia on left. Food, understory of tree Germ is often lating front glerch lin

aloundance of young heindendron doubtlere due to opening of road.

Dayond bridge Clermontio fairly common Kuber sand (as well as P functions & B. vos.) I epterns at first lun, melt.

Dezond second Town large lehua ther were now with necellant distribuy of spiffythe artelia,

o constant e galation Polyton

the cooply an remain

Torns
athyrium of poretiana
a. & Landwiceness
Trichornanes baneriana

Pamahani I Enrayn zy. Gow dea hill handi

maleneras - Ulafralelena K. Rt. 40 12:50 e. of malaum - nastures with scuttered planted charlypte. Cuprescu, greville, Pulsatani jet. Pineceffle. left on st. 37. Through pineat to field. Turn on Fower Full Rd. Vine fields. Julcher with of grantes, fantana weedy roadice with Richard Pastures. Prented grevilles, acces in gulches! pastores aboutilon fantara wards Omashis

mary 1961 Herraiian Is. 36 Osmanthus 4000 Gulde with assailede. Pteridium in graethers. toplara Charlesting observata Warakera. Hracoena Johnno. aparia Telen row. Tetroplasandia myrsine tery 37 again. much acacia doubata. Cherrodendin Scattered frams. myopour Vegetable gardens. Ochrosia fartana hervilly parasityed. &c alyxia olivactomis maile la lise Dodonaes Heokea - Kula Lanatonin La Osterneles Rough frastra or lan. Cuphalia celast, much lantano - & cactas. Co moran a Vact expanses Trailes alphi toning metroridens motorain alizad na atract this side of dance Styphelia Lantalum fraleakalth metica trees. Cinder and below on front Virturus grenillen. Miertian glan notherestun Melia. argama. Fortaria Enerally fetul glanting, Clarylon around Mahalalina Randi. Weeds Evenlyst Islantings. Ridens pelose folarum sodornous Goobolus elngslus Pursabol richolaens Anstrochaeris radienta Stillaria media Passiflas y in planting peplers Plantag dane.

44. 34/9 Line there aire (offay) 12 mm. 41511- 2 Hother cestrum latificium gay 12 Pismia sandwicker Fred I'm 13. Coprosing stephanocaya Hld. 4. alphitonia funderous Ald. 15 Lantalum balcabalance locally common 16 Enghabia celastroides weally abundant 17. Ptain war war war 17 18 asplenium March 14 - tela Headwaters of Kailus Stream, estweet of Walkamoi gulch, Hailin Ulsa, n. w. slopes Heleshale in montare rain forest dominated by acacia broom 19 Coproana stephonecaupa Hall comme to terreides from " race shiplytic in acasia both H Copression

They 4 m. tale, will brief yell 5.5 Trey 5 m. Tall

same time us # \$ 42033

tree 4 m. Till

tree 4 m. tall, "leave,

much larger), flowers
bright red, searcely
any order, rube put black
glat topped tree, the fact
that topped tree, the

1200m

show to me talk.

Hawaiian Islandy mari march 14 - Kula Pipe Line west of Waikamoi stream Heilmelely n.w. slope Haleabola 1 × 1 × 1 shoul in all: flower 41521 Coprosong ochracea Oliv. va. ochracea occasional 12. The itera grandenin va montais fruits vermillion. abundant on moony barren, logs and tree trunks. 13 Trichermany com mon on ground or March 15 - Waikamoi gother at Hana Road slender erect showle 2611 Teberalina Blumberguha (Sthrank , Mant) borh of small rivulet 2 m. tall; steril. in bottom of gulch march 15 - west slopes of Halealrala along highway to summit in open serul on weathers lang. erect, many stems from 25 Lepachinis hastata (gay) Esling very local, colony of 5 chemps, base deep rose purple; plant strongly aromatic when 26 Luyula carrifostrio vari veca sional under the ftyphelin shout Im, tall 27 of typhelis flowers white. cilcumdant shout in tall, 78 of typhelia fruit pintish white. abundant 29 aplenium trichomans nore in crevious in nochs 30 - asplerium administration in work ctd. 10.50

at 2400.

Mon. 15 - Wailulen to top of Halcahala. 7:50 -Thru cane fields to Pulsalani fet. (see (129). Trisholaena conspicuous along roadsides. Chloris gayana and Panieum maximum also. Many small farms and gardens just below and about Pulsalani and mahawas. Pine apple fields

mahawers. Pineapple fields over most of country best Prikalani and somewhat above forver Kula Rd. Then above forver Kula Rd. Then with patters of Encalyption on tell. I some ross all parties with patters of Encalyption restlered Casuaring and gevilled. Rosus of Encalyption and large blocks. a few and large blocks. a few Cupressess macrocarps on lift

about & 400 greviller about of acain dealbata, dominating of acain dealbata, dominating

landscape to Italeahala turnoff. teatheres clumps on up the word many and notable Elver garden many obacia, my Cuprossus. The and other confers. Myrica fraya occasional. feathered flyphelig Tun. at about 3800. acain and Encalyptus gratches. and small frams. Planting of Deostyros bake at about 4001: magnificent new of fellemus and West Mairi from sust below this (stop?). above this belt ofren roller rough frastine. Pteridum rather commen. but generally the pastine is in good shape. Encalyplu blantation of on left at 4700.490 Encetyption in navner on it.

sparse semb, mostly

much grazed much

Styphelia from about 5500:

Pteridium Recomer dense

and mixed at about 4000!

mani - Hawarij 511 , 1961 Hawaiian 21. 1 ctd. from to 461 granicles purplish. 415710(gran) Holens Panatus -. march 15 - nim of Haleabale crater at Kalahaku Overlook dense tufts. 32 grans I Des hampen milione Will I'm common in love volcanie - March 17 - Kapolis House Lots shoul 3 m. tall leaver 33 Piptures argentens va. with red veins. common in undergrowth in Panacki fourt march 17 - coast south of where Kir Flow of 1955 reached sea in series borest of metroriders on au lara. should 3 m. tall 34) Dioshyros ferrea m. sandwiewie orcesional along. 1.5° m. tall leaver 35. Cantlium odoratum (Forot.) Sum common March 17 - Kalahang Beach on dunes of black round prostrate, forming thin max. 36 Digitaria henry Rendle very local, holding sand 37 Degetaria siliaria (less) Kot. Common Cocally holding sand forming dense sort. 38 Panieum Replus L. common en sand flat a wound backush frond,

52

Small lung of flanter cucal piters and conspers below wood.

Sophera fair size in very open send or stand rawing

thrubs more and more shares, also more depends

Soflery Styllelie most

Vaccinium + Doubantia m

lava beds. side road to left, to

Kalahalus Brerlooks. Imali fratch of Tryy varphing

for bushes here almost all blyfilelia longlasis.

grasse, Trisetumand

is yellow dandelin hile flower. Tetramolopium humile just outrade everlook enclosure yest outrade everlook enclosure of left. Fuzula camp o hawaiieni de Below is enomous caldua a lava desert willy a dozen o so brig cinder comes and a black lava flow in f grunning lown to left to karrose gas. Vase retir. very durafel

On up desert of broken.

lava, well realtered

laprened typlelia.

seve Debautia-talle.

2 hours. Road along crates

Observatory 9805'

Cliffs below have scattered

Dubantia shouls.

Frail to white Hell 380 phs

Fara boulder desert with

sea theref Dubantis buelos

tifts of Tr. setum and

rosettes of typochacis

letween well. Eight gray

slabby well very dense.

a little 7 etramolopium in

erevier

Cabbage butle fly hos.

Road to Red Hill - almost

complete desert. several debantis

bushs only.

Red Hill and Magnetic Hill

piles of red clinher.

Hawaii can be seen

in viotanu & L. Farai. Moly

about \$500 the land well about \$500 the head well almost so below here Dodonnes chemit go for above

is weil.

Marin.

about the geranium above 49. Silane shuthwholder along ad. at about 8900.

Seperlining hastata about road is open flynbelis.

Vaccinium sent.

Vaccinium sent.

Potendum commun lalyhot. pell.

Potendum commun layhot. pell.

(at culvert us. 373 A 318 amall branch ud. guet below with about 5 clumps.

Beyond a bridge and pole live chant.

Truntepolis on brank of sucalifeties at middle alts. Bright many fund above last house last

Myrica ferry a nother common among small frame.

in parting above principle field.
Back at Pubaleni at 12:00.

Man 15. Makawao toward Hang.

Many ornamentate in village forms swall prespect field.

Then partires and small farms. the deet of Ecasia.

Kotsomo ares.

Everalytes . some Copesius.

Pastine quara frontst and some kulus in quelches.

Kanpakalva.

Partires with clarks of tree mostly Everalythus.

Guang + kuling in quelches.

Introde. Fange Encalytin frest on night in distance. Herb queck with gleichenia, Frava forest, grans reach. Encalyple, manyo. Vacture and gream thickets, and qualytitus chrones Roahi. be so brolegio and grava along at. Kuleni - quae -Pandaru Joel in gulches formet. The time set. Kakipi guld - mixed lowland from grava, stranting quan (fill with low) quan frad cits will a few flylefic, lehua, hoa shouls.

Paved hwy Vartures france, home scattered brush, manys great, grandanus, manys flenders will grava, great above. Pastures anhells. Pastures anhells. Pulches with han, greate, thulling the settlers, the present of the proposition of the proposition

Huelo. Wind sheared rose able much mange, some hon, much greavy, Eigenin cumin. gleichenis, Paroleny, kuhni gulden and brill with small frastines and patities of sent. Ferns - replication Appendmen abundant or out. Our. Irvo and angerra, malaciens my gulcher Kailing - home, mall farms much have front. Encalyptus grotes. acomecanic. Bambor in gulches. Mixed liveland belet

in queches and on slopes. with many planted treas. Westalence, Encalyptin. much show spathogettes is cuts with formi form how, mountain Cucelyptus and melalouca, gleichting on Blogg. Warrancy Gulch. Water by Premero frest on e. vide as as side a mixture of quara truling. frandames, how, with hos and Evenlyhter above on ridge many introduced mamental near bridge -Xanthoromo, Buddlesa Impatieno, melastomo. Corsi. Lemna, adiantum curentus, thelypleis off nephrolepis bindertula, pamahani Commeling under transfer. anthereure. before our out of yallarroi. guas sent on Ills inading judstynes. Ridges with glerchenin and plented bred of Arts helderen, Colabyletre River

Pandamen, acoura cufus, appearance, quara mal. quara.

Kanmahus Park - stof trees labelled; mew. Condenum bluffo, temota. Honomaru gulsh mired fait med spellades muchan foreston love aloge ludio in quelle. mentain apple, greats, mange, Pandane, Cocas. Datura estrea. on a sid - have fruit below, Nandenus above, much gleichen also. same general mixture for several walleys. Candania May bulen whendart. artemier on bar diffes somewhat before Keange. Forest at Keamae clargely an esote mixture. Kennal Van view Town putale Month of Korlan gap mint. Breadfruit trees gust after Keane, before Karlan grb. View my graft lars fateles below no rea sul. View. Waisling fortrout. Falls. Waroleani Falls.

some native plants in

Thickets and or clipps. Kon.

Koa obundant for a little distance, Chermontia + Cibatium on elifofre Roa to well into West Wailua iki. also beyond - it unto East Waralus ilu. Ladlygia or Clarmetia scallered leling. Plantes melalouce much leag. alpanost into Kopiliula Vice waterfall. Koud up a fear tota wirth mixed brow and exotic forest then bear with lebug & guarar Puakan Park.

Wartravoi Gulch-above water Bourtain a chung of Touchurkis latifolis.

Polytradeum acolopendia

From Jot. 36 + 40, along 76 &
Kalulini Rolling pastura land with
some princopples.
quelche, with quawa buch
x some bruhui. Lomo pastures
invaded by quava, x tehinisterel.
Planer
Ulumalu - Haibu

Parwela - mostly pineapole plantations, woode ' or Greeky queles wind beak of Cascaring on lot sheltering many orchad. Lowlande alwayse. seve trians, Levening, Gugeria cumini, - - -queld with new bridge. more preapples, then care plantations to Kalmer. Kiawe in gulder.

Mas. 19 - air trip Kabulini - Hilo. marrow strip of heave back of beach at head oblay, not on north will.

nothwest slope is mostly pasture, worded quelcher. former slope finesples. north slope is generally worded - native pract eart a belt on west sid l'astures extend avour much faither on lower slopes then about tocally much invold My guara (?). Pasting percho out just before first large bay and quelch. 2 gullen lefre Keanae Peninsuls. form in bottom of lower

trent of largest valley. Beyond here it seems to be worded to sea, except for potelier of gleichening on a few flat indge com and a few clearing and small areas fraster above rea differ, some areas up or slopes may have been clearly Hang ones has extension parties above and west of airfort, also some ? east of this alm and east of Hang. Frest squates airfront and from the former gentle slope around court from Hana are in granture

Hawaii other grasses, some slight envasion or sprouting of Lefrey. seling freet on left with - little tranting of exter. 7 la or considerable stretch of medium teling well Citotum, glerchening and hidleria. Tibrucking abundant along roadsids. (m.1.23) tran her on much planting of exotion. recallyter, Melalones Casuarta, an arecoid Fart mue and mue unequelar. my 21-20-19 Roce bendered by Cibotium. Encalyptus, Melalence still some leling, especially young trees. Ireally believe still olon inant. Hedgehim abundant bet. n. p. 19 x 18. Cof m.7. 18 much strawbery quara. - non her much less le bug not many trefers. Thisbets of sharbery gran. metaly in caly melalenes board mip. 17. Then

algichenia and believe I leve loures + elecuring. androbogon & letter. they placebanis - le bus. to Palera in trus. Statoa - fara ing bal. finall care field just out of Palson garden with orange trees, many arranestal, Effet reathers along the Who the trees and recolyptus robusta. Iteles of looking. then a grove of very larg, allinia faleata. agenatur Lyustomanum along I under There dun open labora with deep gercherain. That more alberia, with quat surface vostion lava Denser lebua frost, altigra only along read. then almost investately much smaller lehur, with densen goedienin (1840 flow). Itil much altigris along nd. Then taller denser leherand allogia along road. Large albyes Lava the greek stop partrum lot is it rather with tangle of fletchening

lineary var. tomenters. furt inside part gat some planted exities -1 ration to plants of Plus avance, Telorching ? 2 yes. albigin balenty. neglindefic abundant nes exotic orchid. gardenia remy pleated just part first lang tiees, and a small coproring in it. in solge of, word (notion) Divignos have a sande. on small lava mount in first gowlood laws Trees. Plented Ca Coplingle: m transcense v. antillarun On at of trail a small planted l'illisquem hormani Pott Pig tures on it. machacing angustifolis. Open area with man lava trees Clants controlled by spraying, Plant of metrorideros lucida (253) rear little shelter at entof look on it i tall Winstroma.

Calophyllum inophyllum

but not doing well.

alo Therhering recolling

On left in lava several Clermonting, habeam? forme small strypheling Tent off trail a small planted Remolfin sandw. (has) also sev. Tetraplanada, meianda On trail back machaering mayonii. a clumps on it. On left Carvaring papuana and C. ex oligadon: On left Gunnera of.
Prychotin havairens, mal freant or in crack on it. also a plant like nigrum Piper methysterm. I fetures march side Borsonetic grapagingers where trail corner back & fachiget asplenium midus is crotil of alling between there in forh of trail at harling let. Back of trilets for Pritchard seedlings. Lange and 94 day around fracting lot gardenia jammonder, alpinio purpurate, touch ginger, acquitain colored Condylin. planted. some Hophoteena as weed. monstery marganand incl "make banano" double buch.

Lava Tree parts Rapolo Open gleichens with very small lehur on 1840 flow I'm Hornauly - wordes ander come on it. much berevola chamisonis on lava. They large coffee plantation on of they Ichua, nelluotelis gran on Ceft cam bield on ofen letrus an left. Care fields. Chen 1955 vents, shatter cones and da flow. Suldered are observed 101990 + 1960 has lengels interes fut in Vanda. Melver Erechtites val. How her Cylienes trenfolies, Eighton glomeryen, Vernonia comere godigeton Euphoring but, Drymans Digitaria chinenni, ageratum congraides Erechtitos hier. nephrolepis all very common. On romy flow itself, swered by trio spatter, nephrolips abundant in drack, fruiting. (photos) Pour Kir, to left of road. sinder cont covered by quang

Harveri, new flow on left in distance jet fran frem 6.74 Road turns toward sea on Down kinglan. cane old lava. Itallered below growing in areas mut covered. Much Cosoythe. Planted Little but replication on 6 counts. Nevdany become an they care motel Common Beach lots. flows to Kapoki crater -1960 flow where it reaches on old undercore week sea. Turn back to take other by grand brush, some Genle. Pandanes forest l'agage plactation on lost. form, Careening my On other book, older leng 1 alexan. Kning of Kapolis. ander Swarf, leting, believes ere of it me very beds bad Pluchen, en lova flats now court forevala services of it. no veg In mins derrinant. Much behinner are old cult plants of many onts. The side of Kapolis Cratz toward old and have back a little. Petch of Pandanus. for low tologisters and are had meg. destroyed lava. some leaenda, very or almost so, & mall depresed, fearmin in le huas recovering. Many low shots. He hesurium weeks and ferm young tamaring. has stems greenish above, Carrie alata around franking reddish is side toward grown lot. I low stratcher of flerwirum only nearer show. sea westward. Congetion Jan. 13 - Feb. U. much Finistylis cymon of low covered 19 25 acres (400 new ?!) on var lara. Waltherin, Chrysopogo various needs wad toward son s. of Kapols Cr. Through core frields. 12 raching rooks Breadfruit trees and Road armer to kin flow and almodard bully on a side cingles lack, through son lebene below cater. Papaga planting * Jehines to regain beams was wear forh. abundant.

ather little old vent, some with came on outside.

Come on it of his flow.

Lane areas from it.

Pandanus frank at Kapoho Beach Cots - dense, inequaling solid stand 10-15 m. high, canopy fren undergrowth clobed with young Pandanus Piptums albedus, Pluckey guard.

edges with I hunbergues alates (white) Canavalia Passiflers fortida formaline hymnory indica, Commeline life essa. Papaga . Nephrolipis alatest solge Molasse, grand formaline grand back believes seeme and amus. Then share latest with abundant lossytha.

Then or Poilir Ad.

Low spring labors with some Consent or Lattered wangs of along of.

Out or bare this flow. Sea.

Mo veg. Crossed it.

Then now low lebus send, event, event, with Centhering, Diospayers

Wilsstroemic on older an actitle felicina Grando concertor North. Ralando fadleria forevola sever Tytures Cassythe Catches of Panlanas

Calophyllum grave House, to rea with consider and wangs canthing on it. Then a lotherede. Covernt grove with conthrum uncher stay on it Calophyllum grave mile, market freet mange mile, market freet freet calophyllum conservation of calophyllum and in conservation of calophyllum areas freet fall park, with calophyllum tree, black sand.

Back of this same with grand ste. Red miced greave sent figures etc. com mange Pandague willers saperings brundant in great forest. fore scient of grown, ex gatalies of Pandanin and The freet mer lating result front overthe gove guaranese with restory fandances.

Malama-lu Frect
Reproduction Robins for sea side Reservola
lehna (1-2 m.) , fty helia on
manha side. from whitnowns,
Casony tha frethospottio
Wattherin Osterneles.
Vantherin Paleoneles.
Lyonis, 7 mobiles Jacharman
Lyonis, 7 mobiles Jacharman

Below not of fittle durant factories them the son of 10-15 m. with and there would be the survey to the son of the survey to the survey the survey of the survey of the survey of the survey of the survey elypter the survey of t

From here on considerable Carnarina but well back from sea clifts teachor on pahoeshoe with a lettle lele. roch admixture of other things. Much Casciaring evens Mackenzin land. more lehua topa seruh from Eq. albigia pleases Coconet gross. sach of il Pavdanie - brilini. Captures, lehus. Then Pandow - Reduce Amellounder come on lots. cato phyelum grove the lesse letters landamis. 4 quevo + pendanus. Jug. curini. Calophyllun Clearing with greava Cornerts and have. Mused bourt langely endi. Cocening grove in it. The on left of wind sheared Calophyllen will do somely etc.

Alut

caloploylam o cadani. then with much quevo Propertures on st. Cleared land grown back to serve on left - Piptures Muches, grand, etc. Baranas on it Pandama frest. Cardanu - Rohna - great Pandane or Coft, som admixture of farmaras dehing et. Then 1955 Kawalean as flow absolutely base. photos fil alsiqueland Lahua with a little Pundances cont Thired quara , Tandanie gugetes curum. lontary with grang Eugenia cuma. More quava augorie mul taloghylum gov. quara seul. Pou Engenie, & Den Pandanu quane stry Then the Stack as will Pense lehne fact then 1955 Keckee an flow.

more black as with scattered laking. apparently my thinly and not ampletely covered by 1975 of low. offered of tohus to hua secondo 1995 Reliang on Here small hepokas. bruch with some Pandery ghava firest fren leling gaest on is. Ortendo some distance, gets lower, & 2 m. then 3-4 m. or 5 m. low again. then very lere and strance 1-2 m. and agen savano strong and and spogn. Uga denser regain but low. spathoglutter all along fine Thre and me miceno Mukshoemis and quave forsbot distance send ther open lybus on ra. on left almost the an 110 m. ther low quara serve with scattered Trees

Sugesta Eveny of Commy Jet. Kaimin Beach. Corner grave or brack sand bedde blat. at Phrelier send quart Count grove in ht, quava send on left mar llucter serve. then rendams & Pevilie Rulagiana Partians cupetia with taller -hou ocul. around back - Vandern and alcurates trees when In edgesof fond - Breoky monnieri ? clipta alba Hydresolyle vulgari/?) Commelina differa, Partialum Pylyhodrun scolopendia, Phiebea odorala : lettle back. On dunes 6-9 m. high of alacs sand mostly pomora per-course, cignodon, Stenotaphium marican Digitary henry, I sp.

Xanthium,

Penneum of on sand around find back of dunes.

Bart to Pahra by reple noadi quana brees, with Plurbe along road Then Policeled will reattered amale Engenia spoothaldlava. Wen an ar flere with lichens and widely spaced Cohus 6 - 4 m tall, Alephroleges very efaire, locally denia. with beatterer matings large guera with larged manyo -Then leshows often server quare manzo, will organizal houses will orther trees reprocessis arry rel. Then quara serve. then with one many and Denor Gover schura. and antifying - thathogreting

and other orched. Then foremen but still of on telina feel to cleaning with sharel quark and codyline. mongo tres. then fairly good labore. Kealnokans fra visem Derse 15-20 m. Pelus with Fregeretia etc. Then 1995 Keliena flow Correrty left. Some existing before, sel, in right. Deliva from. Phihams was Februa frest with abotum Allam crack on left, then Kamaili vents of 1955 ouptim on it. spatter man. 17, coner sheletons of lehing brilled by gur. I then lehus below were apparently willed but have now put forth abundant shirt branches. (photos) nephrolepin abundail fort. Whisatula. Vlucken, lityrograms Jussian Commeline Office agentim con. taking apples dishotoma abundant or readrid 4 m climber

good dence tall leting birent, out with some then smaller letter with gleichenia they tall leting Carons, & mutilite plant. good lehus forest firstaum layer Cheing rubdivided as Leilani estates.) Coffee blantations - don't look healthy cane fields with gratiles of lebung with glenchers and of stance lakes frest. The coffee a lift Village and intersection with talloho Rd.

Man 18 - KMC - Park Hg.
Open serul of Atypholia et.
width widely byraced small
lebus fadleria, patcher of
gleichenia.
Iteaming flats - squarse
by dense gran e eth Macainina
Mass.

then them low believe fract. Heavy divin along wad.

march 13 - Olao - Hilo. mixed thicket with bulsui lelia, Hindanis. various introduced trees, Cilotum, Heterocentum Hedychium flaver feelierin malvaviscis, res gorn genta of acalypla hispide, lelienes, Total planothis et in rendergrowth Gerobra, Helionarbus, Khath-

The down to m p. 5. then forme and pasture. Panicum grupurascens, replantelin, etc. with above fet. of a painted thinket mange and incalypter trees. Pandanu fred with roade quara, etc. on it anterendon. Reterry Line Then mused brush, larger quava. Ven industrial Sistrict. Open renderes ares with March many gramentals bread Vanda nurseijes william. landaru on the quara walkert serul. more industry on left airful Icl Kran. going into town large open area cleared by tourans

Hilar to the the of which is not بروسايد بالنف بعضها والإرار ez. Farme Stainback Huy. in leting. Readicher and with I luchen. Woundrey Firet Res. Melastoma abundant Open before believe the Costium. with Colotium under etay. Petler open and enily. along road. and Cilvotium Rayer,

Occ. Pifetures. Still

andropigen serry rid.

a little livery back from . rd.

Walls in the st & tof of of of of any of the strain on at almostary a down short and a left of the strain of the strains of th

on up. the food continues
by be open and filled with
gleichenia etc. Cibotium.

Group of Pritchardia a

left and on at

frest here about 2a m

but with gouldin terminals,
Petrums another squaring

athyrium sandro.

Therefreeday

Gleichema gloma

Gleichema gloma

From her along butchard or consonal right with at edge of broken also Coprokens the edge of breeks about a tacky tay theta still abundant tregardes aboundant. Therefore a tregardes were to the floor of a total a to

gen lage dibetun bulbus gleichen better devoloped.

3619 Better great but still rather
3619 Better great but still rather
360 Rulani Caraf gate.

Coproma Partus and.

5360's mile on cleaned growns fladleres in Machiner Copies enord.

grans with scattered

Then Jon to closed lebus forest. Cherrodenam etc in second elevy terns - ladlerig & Cit.

more closed but lower

40 gode Corrorma enod at yate. Forest grand fore long.

does becames deminant myoperun abundant. Fate at. 5820. 1942 flow Pla lava gran, with lichen - Stanochulen. Prezhodiun felluciden Coprozina en divide Dubantia sealer. Metroriles Gilobian Voice. - et. Vaca berberis. colonyen mostly on disturbed places Kipulia quet anside It it me an la low open sent forest of Jehren (minter) and a mixture of Deschambres & Copiosing androides on yound 1 ree 3-5 m. Atyphely. Lyc! venurtules galinia gas Aplienomen chemony flichenis ten Godlera Justine ! Lares. Kyr. cemm tragario Voice bet. Vace bed. ?

the bright about

like bright prossy

lyw letters. Thypsid a.

Typerior japaneur

fre t considerable repro
Cennedanable. Rubius and

My parim. Coprosina

Characteris pal badlein

Directoris pal badlein

Sellie of what hoppened

Mann.

Stepheter in you wite.

dest cleare and - included landways of factlerin and proportions

543 Gate
543 Gate
57.3 cross mad. 2200'
57.3 cross mad. 2200'
59.1 rd. to mt. View.
Brown down frest - scattered
Celius, thickets of Cotrosma.
Cytures, gleichene Cibotain

Then open are. They dance young letter. the cleaner land, abandoned fram, etc. Helescentin thickets, Altreheny, Tiborchina tall palms. Patches of rether dans small letters. Cloured over of andropoger - realtered from small trees a clumber of rapling and gleichers. Then offen regrowth of lehua - Pancum purp. + Gleichanie France. I am care frields. Leveral places.

620 Highway.

Hawaii Hawaran b. 94 170 march 18 - just out of below 5820 1942 aa llava flow on Kulanja marina fra Road in open to frest on old leva. should 2.5' m. tall; fruits Dhis. 41539 Coprozma odnava san redsiana - vermillion fleshing occasional in understay 400 Vaccinium Coloridefilia common, with V. reticulatum March 18 - same british in 5860 1942 aa lars flow mean Kulani - Mauna For Ford. in low open metrosideros wordland with Deschamfrig. the black, glossy. 41 a Galinia jarania galiniajamos common creeking shout to im. or more 42. Coproma emodeoides gay tong; fruits black, glossy, aboundant, forming a large proportion of grown cover - Juny. 43. Coprosma ochracea vai. rodsiana oliv. - show in all ceremal showly o.7 m tall. 44 Copressor ochrave un rodeiana chir. accesimal show 3 drs. tall; flower 45. flyflelia 46. Fingaria chilinai anomasa? - white, fruit dull maron. fetals white; fruit whit, achener almost superficial. small trifts 47 Carex To fyrofindium venustulium treching 49 Vaccinium caticulatum dwarf shrub 2 - 3 dm. Tall; - fruit dull maron, fleshy. dwarf strub ? - 4 dm. Tell; fruit dull orange to ve millia, glade 300 Vaccinium reticulatum 5m.

Hawaii Hawaiian 2s. 94 serambles, flower 41764 stenogyne red augle. common Mar. 18 - Road from Hile & 7-100 Kulani Prison Carry, to mi below turn camp in moist metrosiders words on law fronds rather closely 65 Thelypton spaced on horizontal rhizono oud simul in palm que frends tangled, slonger, 66 gleichenia glavea - glancous beneath. stender shrub a small 670 Coprosina pubers of any the 4 m. tall. beneath leaf newerther common 69 . Pipturus albidus vas. Common shoul 2.5 m. tell; 69 (sychotris (Atrausia) hawaiiensis - Cowers white. commen strut, flower greening 70 Coprosing pubers gray an common March 19 - Road from Kulani Vricon 1900. camp & Hils, "I miles below Frism Camp in rather ofen Metrosideros frest samb 1.5 m. tall, flower 71 Cyanes white within ? ammon slander should tom. De Co To coprosing pubers gay cor more in opening should 1.2 m. Cab, ferwers 73 Cyanes purplies green without om ma white wither. show y m. Tall. 74 antidesina thatyphylls common

Harrairan Is. showly 2 m. Delle flowers 41575 Cyanea vecasional dark fugle without, 76 Hymnoply len of Tunen onter trunks 77 - Pole Cotum vory - - AM Son and bending downward common on try trunks 78 grammitis trees 100 g common on tree trumbs 79. Polytrodium raise, on tre trunks 80 " sychotris straums Herwaniena common leaves dark green above, 31. Peperomi beneath green vein margins carnon employer on logs and trunks 82 Polypodium saffordi occasional, epifelytes 930 Volyhodium tamaricinum dramon epiplingter 840 Hymenophyllum neuwom March 19 - Heling Pale on blace lava ledger stem bleshy below, caly deep fremple, torolly 85 Clectranthu australis pal lavender. 84 Dogopten dengina common 87 Linaria canadensis common or patches of soil above cliff march 19 - Kifulia Mane prostrate, borning may. 28 Veronica bottom palebeia R. Ar.

March 19: acea bet. KKI and Observatory to corner fairly clause low smult with

after comer spaner serus.

almost desert, on love lapillic

scattered small believe.

Exterior along crater in
road about half way to KAIC.

Then dense serus again.

In starse sout Densthere

is common, loss so in dense

serus Borbostylis also.

KMC & chain of creters. Sent from with genelin dence food on Extr. 5 votes as House. Many anamentais around VH. + as derice Yellow ginger + Kahili ginger loward Kilanes Ili. rother dear but scrubby. Then dencerand taller - 7-10 m. Open stary of abotion, larger ones on roadside. Furthering on rogalists. Boynd Thurston lava Jubi Transing lot fret is a little loss dense, perhaps downer. Butter Cibotium story wand Kilanes Ilig. Beyond K.J. oralosa

road almost no bein layer fit of charinot cratere red. damage to from from 1959 enlighter - to flue manu crater - medavices camage from primice. Open semb ferest with street lager, Doolerag nortable. Puliman Crata - stop Low letus frust a road Brightanian angustifolium Aprobolus elongatus, Caras moderium, tadlarie, ot Atylheria, Wilstroemia Vaccinion should In off side more offen with gleichen. negelindelinatundent in ledger and top of talus in clate Fragaria guit over wall on crate, in sharles. Polyboolius pelleciden. Frest love and more open on down road, should and fadleria lager promisent (ment create). Farther on som glichens, but event area only. Then, near Heling Pale 1991 Non palvelve and with scattered betwee brusher

Then section through

ander core with miderest for scattered trees + Acris. Heale Crater on left. Very ofen seems, forest. to sever with scattered tross Coprosmo, Ilex, Pipturus. Metrosideras shows mas wariation here. analis Crotes. Phains grandeflora established Vodence Or concles, topours Copwing swodande. galinia jas. on edge of crale. Open server frest to sered and scittered heer. with glarchers. Steaming ground How aband grace and gleichenia, scattered tiny should andropogen anudine Figedpolium cernium tralli Later Frested. andropogon metroidue servanna.

I'm Hulubrulu on left. Then open front with gleichents

Wose crater - walls and talus mules les revoled glon of lava pool with very spane forest.

Clarmontia buch on left moderate just Office Kans New o Hamo lang come men have buttle. Lantalum pariculatus an act. Then taller press with rank gleicher Forest gets thicken

just before end of maliangulia. four frest of Celua around crater at averlook a bush of gove dia terminalis ne antique (1). Kalvola chan around partiers area rephrolepis exaltato abundant. Week.

Machaering generally comments absorbant. androgon general in offen areas. Dicharting very am mon.

also flat started steaming

Hiling Pali Rd. serul with seathered tres Levertha brilavere. lam open bubbly published Dubantes Marlineran aris.

much dubby passoche with very examo secula ecattered tree. Varies much in densite. for sper series freet & desert (ey. lower down). The an area of open front of trees 20-25 m. tall and my to 6-7 don dol. Kipulia nena. Underston of doplar 2-4 m lighter. Week Commeline de que Riden follow I for me indies, Ptarities may bebecame i centro. eta. On Stylibelia & Rodonais much folice planted - midning 1 - ~ m. tall urbandred. father over the horest is more or less closed Locally Stypholin is abundant in thicks, rest of open frest and topling bures Then open palochoe larg desport. Then more fruit. The more clerent. Thou have ma of andro. progon M. Molinis tendium approantly on a slightly olle fooloehre will me soil m st. Farmy lettery scattery megulardy, or on the tronals Pellney territolis very common In termeli in crances

Saray Mucleviane Pailotum nucleum Cladenia in Page sulpace, also Parmelas. Porgetting. Many weeds. Bilem pilong var. white may.

Keprelia bourly denne teluce with faplus. gets thinne faither on. Hilina Pale great frault rearly 1500 high, covered by graces mostly andropoges choglomeratus, Welinis, Tellaca, Dorgofteris, seedlings Waltheria, Bilan pilos, Indigle planted Pteridium, Emilia, commen. Various other weeds. On cliff are strip of lehue Coasta flat be tre semo to be all gransland with a few scattered bare trees. fundamento right gray and black, without much gran Onledges of eliff steel, our. Splanomeris Rantana Naphrolepus Aplanomeris Rantana Naphrolepus Arats seen below. & business above pali lepua forest in both directions in distant allhares in sparce to sort

from I att Ben fine mar. 19 - Boardwalk -Letrus frest recovering from fune damage soling out innumerable small branchiets on of francisian trunky. (whotos) Road conered by purice . I not speed limisign) tadleria survived Drymania - Cypen 2 Gerifolius well developed on primer artelia and coproma emoderide on it a few feet off trail. More and more dead lehus, and less recovery. I tendian on left, then on it. just before last living lehers. Cibotium spine Cing, on cold flast living le hus.
Ilseleton fret many
fallen trees no ferns in this fat. along where material is seriaceras a few tiny sprelings in the molds then a few at pleaser of standing dead trees, my and more near to second flation Rubus marcholing is speeding in from recovering front on craws shatter also Cy herry · Cyl. bu. fordry, faculty, astelia Commolina diffra

This new end of walls and will and colleged frace of the Come of the Come of the Come of the Bryan ladge of the Bryan ladge of the fram Standard Come Calder

Here to the excellent there leaves in place. I care

Won 17. Wright Rd. (Rt. 148)

Dense low lehns fact
on it. Rubus penetrans
and R. of maid
Thoughing with Pyramalla
Enbury with Pyramalla
Enbury Gupressus fricans
for Christma tree
Cignessus along was.
Clearly tall lehns forest
They fen lehns will
well developed Cibotum
stratum
mer cleany, I low regnoth
Dense Cleany, I low regnoth
Dense Cleany, I low regnoth
Ofened up mot Subdivided.
tangley fibrotum laye
m both sides

har been charged of partin Roberts place. Pit for confrontvery dark well at wh with then layers of retrivilite. padually gets relate downward till it is bright red brewn. Then suddent a from triable gran lager In tack - an open forest of lange syreading unde layer of libotion actures The Victures lines the road perhaps andling free to at has unum l'eferonia, astelia and on its have themating Egyanen lome Coprome. Tragain abundant on growns. Cleaning with lashalum delatatum. a Pontcha dis 1. Alexande many wares Then trail unto free again announce athyriumysaido

Chair dendary on Egy

Chysolis peur interior

Chotium glaveum lagge

Thelefold of fully

En Thelefold in change for the continuous per

Con men attention cyather of a continuous

in read

in read

I welcome a morry for lay

toundart on morry for lay

toundart on morry for lay

distan, Elaphorghorna etc. Treferen skiphyten a let was Churcherton also also parmitis Treely boun applestium candatain ? Cytandra, alypea ou.

On left for.

Oxylenium on though on left
from in front forts.

Rubrus sandro and
Vaccinium calquinum over. Palo

R. vosaspolis!

Copyramma on left
clarge ext baing) at severed

Aslanum rugum intrail.

Her & Chemodender.

1140 m.

plower, mayenta people prostrate, forming and every leave, maron beneath, with green veins and area along veins evert should 1.7 m tall flowers white, a houle, of lower white with purplish Este; four black comes primocare, evert, 2 m. tall, flories are areling and secondling, flories are areling and secondling, flories are areling and secondling,

Some.

man 20. - KMC to Bird Park and Truch Road. Open low lakes with Styllelia - Vaccioren seret Oci. small fantelum. fadlera, Domaca. same in road to Bird Park. On old paloetoe. Down bill the lahua gets taller still open. Maura for Strif feeric Pd. young how mit gran and Ptendeum Sophona is the low dark tree. some Safrender the Kepplan is or the rightily booking large lehva. Dodenace i dominant in should gay of open lehua good with I odonaes show fabrides feet with tall shout layer long brod in please almost closed. Oci. lehra and I pen lebra bret then

King savanny with patcher of young his front when wordeness scrub, with grass a Sepula to the east. Large area of Doctorace -Styphalia souled an place closed. ther a fratch of hoa forest. Then unlequelan hore youls-land, and savanna, with gran and reattered bushes mostly styphelia, some Dodinson. Dec. denothera. Koa patcher, mostly gruite young, in believe grass with Ptouslium Ther are with hos ine styphelia. an au flow. Then me gran and fatcher gudglast und mosty Alyphelia of 5000. closed to greate organ, & shrub sahann Stylholie with a little dellinaen. has believe memaris.

with young hod, above level with reatting patrice - 6 young low forest, then rather dense, usually a few of trees. Ofen werd in left and between them Then send with icattered bothers, afen small has justiches Shows servenna will grass Stendinen, Den others. Tambs as flypholic. aa flow on not correct. loubers stylikel is afremien en verile gast well Dodensea Lobling Myopour. megular but closed how dominant and reproducing abundantly. have ofen grassy green with stydelin. Then a los bout land. large streading tres and fratches with grany intervals, with scattered etyphelia. then a portchworky sent and has feet. pratche . Acrua is matrix

often to almost closed Leatterey Loghera Then mind low vor legisles of Robling. of dente young has natches of elyplate sems noe send than his. as flow on left, then cross it. leathers sophora & styphelia scrib a mixed of an server uma Dodenaca Vaccinim a very ben sixtered This gets lower and more dense filmed, End of nd. at 6662 Magnifreent wiens Kilaula, Halemaumas. patchionh of front grantant between her and Kilanen. High all serul in foreground, Plants in rent la acaris hon la styphelia douglasii a Vair retirelation Deschampia. la Pteridium a Hypochaeri, radicala

a tophora chypophylla Atyphelia tamerameric Kumer acctosella Sprobolus elongatus Vellaca ternifotis Coprosing envolvede asplenium richamens lave magloving Doctoroes viscosa Carex of Yahnis jav. Metroridans Geranium carolinianum Esthexanthum advatum Hoters lander ! Bromes cathantins (windows Kaphanus sativa lantago lancerata any (a Panieum!) Verbena donous greve of broadward parillen. Vaccinium very variable many pigs in and, dung extensing dange. I photos of send. we of roll on tring damage. goat dropping sen, but mot fresh. Mostly weatherd palroche flows brokets of soil.

man co - Hilo four of arrest on it. a very large fararands with several trumbs, showing natural grafts. Hilo - alealea talls 2:50. corace was treadfrent trees or left Cocenit breadfruit mange a of. Row of small metalence Royal palm in left about frist overfras. fugar mill on it. notecodor. Roder goes along top of see cliffer. Gleicherian Canles. cometery on left cassing glang, on it. Cane fields. it in bank of junge. 3rd gray fallodes muss. Casualing windlreak along Swall garges with grave hord. Breadfult here entitles. mango trees also commen in edger of saving and Can field & willage Cilvetium much used as anamental Anal clumbs of banking Thus gavanica occasional on edge of cuts & cliffs.

nophrolegio m road cut. Supatorium infrarium Henoven turn offas we enter town. avocado. barraras. Greatpent common. after double Tury, macaringa macrophylla on left, ar we go ug hill- many thedendun orelied. Hibiacus hadgls. azales. many other anamentals Care fields, Parling lot. Dense now of Chypolidocarpus lutereles be seed for songe Eucalytia, robusta, albigis of we lot. Leftospermum under Eucalysta. Velms garanica is thicket by wall bet lot and grage Mumerous planted irminate Circle frath - turn right Chemp of grant teliconia. Took ginger. Islaginelle to un bank. Coffee tree on it. below bridge. Batilousa amodinacea my small stream azalear. ardinig y banyan almost nothing nation except ou letra Cibotium Psilotum gleichema Psychotica Delow falls. a Cliff officity

lanette D'effenbachis they listend on yet Fillenn . acropea con cliff or front of fells tolandra Costus monters large my on stains bryand tools. Condyline - now along path + stain beyond falls. melastorna in thickets. infratories wherein Colynius guil. brassaus Impatiens sultang alfinia repeiosa (buyndenly for). regenia of.

Februa grove on tot, of his and or this second your took.
In This second your took
or clump of astelia, also grown and Polyhodrum
trunks, and Polyhodrum
trunks. Exerpiodium at
highlanthum a anched
nort at branch to toulet almo
Kaluma ball. Elaphoglossum at.
Of the your offe and begind goth.
Off Johna Fulls on steps by
yarilion

Cliff below Calment Fall over look.

Otheris along wall of walk

back toward particular

Coisi de lumber of Brandon

In haid my at and of

miling about small hidge.

Of hunglossum bendulum

and Exceptation of ryllation

Rhus jan about trail in openful.

Odiantium anestum

March 21 KMC - Kan - Kona 51133,14:35 Low open lehva wood, or Stylvelia Dodoras seruh with scattered small lehus. forme bros recooluction or it. legal Did al Rd. Reyard careft grown (Encelytes grow) bipulas canto sen on fills across definers in bet Kilavear Moune Rom. maura toa viewed forward and to it. grassland on longerslope, scattered trees Latring become aparen 34.7 ac love on of their road cut then the flow an bed; on both and with scattered bushes be some distance - to Osternels our.

Learp on it across law feel in smooth and grassy with their rainings cines since some sports.

ag has libra, Styphelia, Vaccinium, Dodonnes,

at fort of scarp to right.

approache. The roadalso so grassy stady

much close wire.

Our butches of planted Sweelylan

m pary sloter of scarp.

End of wa flow. Old palochoe with reattend bush. Then open soul letter fort. fra tehen of le hura and of Dedonala serul. Rolling grasslands on tours slopes to right, reattered busha. On left a loose mixture deliver thicket. cult, partures to right. Palrochas with rether to very sparse irregular serul. Ketrua trees dead at tops. a listance on right Marina for slope covered by kan frest.

wood Valley Forest around head of this valley is almost flure to hung, large trees 20 + m. 3- 4 dm doh, nather ofrenin spacing, almost completely lacking epiphyte Psilitum nudum seen, but mans. O ex a Voyslustria navairensis. a solid understony 4 m. tall of Cibotum glancim. Ich inella abundant locally athying of also. 1 ifrtums and ? I notendina Cymma arered edge. Many vines, from a indica etc. around marging. This pest has an appearance quite different from ordinary letrica fraex. It is not var incana, but a less condensed type. The complete lack of moss and other opiphytes give it a thin appearance. This is on a residual steely slope with with exposed in gullier and in places or ridges. soil fairly well developed. Talus at base of find dans been cleared and planted, very recently of coffee, with catch eng

70.6 Highway again at tabala Pastures with farmance 2000 Pencaera. 14. 1-00 pis Engenis go eumini along water course. I en open grassland well very few their extending win gentle sloves toward na. a green defreren between here and sea. mere fruities with faming and sime in erral. much lastany with very reatted Luciona. Patch of bruken surrounded 73.8 by Lucien sems. ander Beyond Pungelier not. a a lava with leurarny Paulay Schenes serve. temo puntis Several of these old an flower with Canthium commer. 752 Ther a nather fresh very rough an flere with ! scattered low lehra. Extenses low may furtama scrub on old Cantlium and Jehinus Keneaena. a few windslanes Crown only Patcherof They Leucaera seril. temp grass. Rather fresh as with only

very widely scattered A law myobown, some Lucaena and Quelen. with my Protograndand Hutchinson Auger mell. Dry slobe grany alone of the mostly fencialing serul with I now produng then grass with scattered 1) wrothis, on rather sleep slopes. 805 Vast Treeless grassy slopes. with cattle. Tursoely gran with rec. small Ferraeva zhrubs. bound rauch houser with 323 Maslehu. Lugar on it basture on left. I been thuckets of Sching, with some guara etc. in places forming a dense seril 4 m. a mue high. 845 Village Warshim ? Colifee gravey has. then wills coveredby Schene quan ducket. for some distance, occ. trees of Engenia curring locally Coffee polaritations, pearled ancalysten. a hotel when locally much sching. believa becomes more comm

310 Open stand of small leping forcelly much Selvinus. Planted mealyther, etc. 88.4 Partues with scattered medion lehra. fouth ound Rd. grave brush along road, pasteres with telus away from Rd. Planter wealth tu grever and was. fauly dense but low tehna on 1169 flow. mue scribby and stranger in flaces; ranging from 15 3-4 m. tall. Then bilingu gran partues. more lowa, this nather loop. As 19 # flow is bare palochoe with depressed patche of dulantis scales very spane to small letter, Psilotum nudum tufts Styphelia bushes up to in tall in shelling spots. nephroletis earlistes an crevices on obifor Cladenia tufts about ant Your pellucion in crades Rhacomitrium massorus deep crown, ladena ras.

Vascanium net, nare in

rough places

Very evently in low shot a littly grass constylier, bluebes, Relieves. Hypo-chaeres, Factures. Rumers - should, along rd.

Then apparently skightly older palvehor will larger lebrus. Then still older will man. Then open frest with styphel & und on aa. trees' 3.5 m. Call. Som myopmen will grassy tryputes with seathered larger leling, much Sching. On Un are a very bew fadleria, me a two little selver mostly a barren black denker suface. Being cushed for road metal. Kipuha folde as protably lehnus. 1907 aa har no plante but a small hefrika a two ther ar older, brown as for with scallered lebur 2.5 spaces, a few topling.

953 anolde grassy balochoe leling a lending hatel. Then a mamare woodless with our Drawna Canthum etc. Then taller open belief frest on an. no undergrowth souls ecultered Dodanaes, etc. almost closed in places. Natch of mised serve -Lethon Portoner, Octownels, els thentall leliva frox closed & ofen, someother trees, on aq. gets lower and thicker: Then a bare as flow, 1907 with conspinion lichen growth, scatters small lehva (in.), Radleria etc. Then older are with over small leling grest, 3-4 m. will. then larger and denier, also mold ia. Status and under youth. Then tall dense lehug, after other trees in with it, but very few, locafly mar. are many . lesser.

manula Puch grassy with planted tree bold native and exotic named. Verilliam, tables, its.

surrounded by dead tall Echua Gred on new morning on iero shorther neght ehi exeltata. Execulus, Withstroeming Patterforen horning on it just aff trail 10 min then templed undergrowth of Landard great some 15.10 min many small Exystertia havairensis Vigitumes, a few Cibotium a tall stander Reynoldsig. alphronia on at, 100 m. t. in. denymany abundant on ground, extentiail. Osple noum sandatum in grand. Linaria combalario Mysin sp. Carthium should at end of than Caled of Prilotim nurden on ground. antiderma hapine gouldes terminale Chain grindlyton Colypor Trumberger

Copromise of Caff favor Experpedium her lands and Cibitaun menzieni Ophing lorsum pendahen (tenestra) Rubius rossefolius Carex. Microlepia Osmanthus common, ely Pry 26 otrug.

n. humail.

Off lava flow outs delply
we athered will

quara bruch, well

lower stay of Pubis

widely spaces very tale

letius Conthum

Mephrolepis
a few young sydetic

Stacky tapplels - p.

Cordylin and)
Willstroemin
Osterneles anth (ulei)

tall lehute forest but
near road much choland
with quara, in places
very sparse
then rough as with
share lebbra.
Then large area of low
dence quara brush with
scattered tall slands lehvas.

still tangled with tall grave. Der small kuling of a grave souls. I hen ofen grave souls. I hen denser and huling then denser helica freet with some levels and spears in when a few, there has the hand home lebra and hubin with grave then more to the rose apple grave.

Then coffee plantations.

Itoopuloo flore 1926.

as reathers small

leling. Nephrolepi.

Stereoccular mober rock gray.

Grava thicket on see.

Then tall lebis of frest.

Considerable grave in undergrowth tangled.

Frequentie

Coffee Cascaring grave
on it. Then patchwall

of grave sout selver,

coffee Ose bruking.

I gettere invided by greave.

Muxed thickets of quava teliene leliane manyo, etc. time ever of tall leting Upen legraded leling breef with are of treature alelia 1919 an flow, many small lebus, Nephro-Colin lecher. Then tall-tehus chokes well yours and telium. Cersea oce. Les tangles bather on then rather ofen medica leling on aa. Thich in blaces some brulein. Then some over parture, morely nathroletis. 1995 an flow, barerelt for nephrolepis. Thyonly near road Kipula visible up hill in right, some beling Farms, quara tourences Vandanus, bruken, forming thickets, which are around coffee freld and between Colfre plantation. Ichro byten some on light. Torre ofor landag serve on left.

Then megular freet, grava sent mossice tarm. Forerees empreus Telieve commen. mangos. Lange Ceips on night and salt, further on spectacular Carrytha. Pastures vell Mango tree. very weedy. 1950 Kashe as flow names tongue. I sphrolefre. Parture: Mango trees. grava her fini thickets. Open pasting. girava thickets. Samanou and grevilles, hees. I lumers above rad, just before Honolina 1950 ag pero. Baro except repholeps guara huchet Corryllia on Februar on lobe. grave and han, with leukin. Varture below od. telunus thickets above with cassytha. two offentalina with Lanterer under growth Kullin grava. West weedy pastures Coffy plantation about

Caseytha below. wints to the uses. Kulsin above. James Cenetry. tarms and fractions. hided thicket. tookenand. There thickets form albigia lebbeli above road, herers from school. tams. Datue arboream it. Farms with freadfuit trees natter commen. Levitie enclare Whatelet Pasture - papaya felents. Cotto. Honauna road. -Down it Coffee mised the bel with many, are broadfruit. Engree. Achimis this kution. pattues. many holinger. Breakfreit common. Barana oce. Pandanus. Turn down Mrugh weed parties will melia facts charly speed fam area around shoot Rethe cellobium - Loudney offen thicket, geto derion down werd. Then more from.

lone fraster with lancer maximum and much Pithacolobum. De. Presche and famanea. Then low serul remailed in with vira. cover undatus Honounan - Prosoper - only & Sithecellobrum figurest time City of Refrigs. Rig townsepation Coroner of Refrigs. Rig townsepation at a contract of the contract moundy, Pandanu, Constyling. Cyperus lacrigates near french premoes per-capiac Fintristyli ogmoss. varous weed all in courtyand. Large heavy . Cyliens comuts. Finhestylis cymore.

Palvehor flats in front Tufts of Firmbristylis. Back of this definence of Cy herus jas. Meyond last wall on bern above beat, in front of briance. Epinma yout Spinma yout Datura metel Consister fortiste.
Cyredon dadyless
Catharanthur wreng
Chenopolium murale
Sida frallax
Waltherin
Cuplindria glamerife,
Fericaena
Moninda

Prosopis is mainly along beach. Back on plats Pithecellobium dome nant spreading flattish the trees to 6 m. a mor tale raller open beneath trumbe to 25 cm. tol often several amalle over from bas tapling, common some elender Bucalna average thanky of larger trees 3.5 m. ground practically bar. I hotor of being. of front of himse from of inside of apiniona forest.

on roch new first endormer on st. with amilia javaning + other week.

Large Prosopis back of parting was

Leaving by other wand. Cerus in walls. Freling villags. for ferrel, of the l'itherellebrum, Leucaene, Persifling factide. yes state or pelrochoe with grans and neglinolepin. Low small famarea restland have and the i locally aboutant. The cons on lavalents of Keei Battlabield On right a low grassy ares with scattered Prosopis (?)) soul gets denser and talla, mistly Pithecellorium, on al. higher ground vegetation. Village with tall dense Prosopiel. many blanted trees - Passes, Evens, Plumen famore,

Samanen sewe. Sem opiuma. Farms bashur. Selow.

Main wad.
Farms thuckets Bartong.

Clumps of lehera coffee.

Thainly coffee plants.

Tiens fresh live & Captain Costs Parge tamenes
and Jacaranda, Kome
partures, Augainvalles

Backon main highway

me my house.
Jacaranda common,
lafeo spathodes
Kealahahus

Hawaiian ls. Hawaii March 21 - Napropos Road below Captain Cook, 5 Kma scrambling prickly Caesalfring sepione Rock. woody vin racemes evert, blower yellow mar. 21 - Honaunau, S. Kong 12 Cyperus laevigators edge of frond in City of Refuge Man 21 - Manuka Park 500 m. in thick tele Metrosidero: forest in an lava flow small tree, steril. 23 antidesma hapuae common in understory slender should 3 m. Tall, 24 youldig terminalis var. flowers of sea with the occasional stender small tree, stone. 25 applitonia prenderasa? occasional 26 Pelea stampet to gandifolia (Hbd.) St. John strong slender shares branches should 3 m. tall. 27 Psilotum nudum (L.) common on morry rocks 18 Ophinglossum pendulum nær morgallen log 29 Careso brunner ! rare on mosey weeks willy to the Polypodium thumbergionum rare on morny rocks should im-tall: fruit Il youldin terminalis m. leaves subplealy, green or 32 references marked with red beneath. common on morny rocks

Harranay 2s. Hawaii march 21 - 1868 Lan 7 low, east of Warohim mondade on pahoetros lara 41633 Rumer gigantens march 21 - Wood Valley, Kan Diets. m. of & Pahala en beton metrosideror -Cilotum frest in steel eleft 34 Dodonala viscosa low spreading Tres occasional with distates branches shoul 2-3 m. all, no common at loweredge of fitte, almonds oda when 36 Pipturus allidus (H « A!) of my of common at lower edge of broken; sterile. shrub 3 m. Tall, leaves greenish white or beneath vein somewhat redded a not on same plant. online who I Kong 37 felaginella menziesii. abundant on flow of freeting areas of exposed rocks March 22 - Kahalun Frest \$20 m Receive, Analalai Road + 700° 38 Vaccinum calzeinum By. sparsely transhed erect shoul 3.5 m. tall; fruit scalet. occasional in tall wet metrosideros forest. march 22 - Keaubrou, on Halalai. in thin tel metrosideros forest with moss or an lava. 39 Myraine randwicensis forming an hen structulayes (4, 11) shoul 1,5 m, tall

Mar. 22 - Captain Cook to Huslala. Farm + bourse, many anamentals. Jacaranda very Calif. Costs to Keauhou - coffee glantations - mange trees, de Pandones. Kalanchae very abundant on bunks. Februa foest on it. just at turn up hill. coffee to 1st gats. Frayanchia grand first. Stand of Toucharder along ad some mous on tunies. Eilestina Piptimes a fundant. Browspins Lehua to 125'. Stop at 2600-2700. a Metrorderos, togoto. C-4 largely. havourence (second stry) Perrotetia Cilotiun chan. l'éptures albedin trequinetia bus Cytardia Groussping 1 eperonia antidesma alyra Hymenophyllan rec. thely cyalls. Class, rety Trick bouriones

down in the lower few m.

I siletur mudum Vaccinium cal. Tangles of weads along ad.

of about 3000 freet of somewhat love status of flat ground fear sychtine on flat ground fear sychtine here. Fear lystandra.

Fraxiones mexicano plantation In large clearing is Kahalun for of clearing is Kahalun ferent news line. (40" mis ringer.)

much lower lehna 10-15 m. more open Gleichenra. No electebrates. Dry. pal. Cyanon very common.

Experimental cleaning 3400 Herry Dense but small lebrua with mo epiphytes except in lower m. of banks caroling thing. Thick

believe

more layer a ground spacing of trees 1-7 m. Lyr, cernium abundant machaenny ted glomerala sachne etyphelia myrony sandow? Fresped venustalum niphrolepis en tag Sphermery Atyphelia Tam thelype cyally Coprosing of galinia zur nephrolepis conform foly pod pel. Kulus sande. alyxia Pepermu Lifranis actelia

and open up. Dubantia little moss. Cops. enod.

Becomer open low undland not over 6 m. tall at about 4250 Brinday.

Dyphelia sont with trong lebra tress 2-4 m. Coproma emos Dodonay Vaccinium Dubantia 2 44.

On an very Thin servel with spare lehra. Rumex range is normanina Cracarpers + Soplar mare at 47-4800.

another soil, deeper, Gartalun, myoponer. badly quaged, many trender. mystine. her grans. Kaa. Kre- theleburg savanas Then letina.

Thise in lapilla soil. Alyphelia Vodonae suel with ecateres lown. tophora, nave. Nerbasurm abundant lantalum on lapelli me in love styphelia semp letra, some nais locally sproma mont. C. stored. myrsine

Triretum Illaea. Cyperus Carex mactroning Dianella Wahstroemia Vatermele

Styphelia sens Dodenia Sittle lebras Fonded pahochoi Currous ad vampart

Dying so Lophora freet. on grang lang slope. Thany planted Encelyptic Amall cone with well der eraler Wilobium graphalium Verlaserm typochaeris 2014 outhrun Verbena benariere Kumer acetorella Holens? Tageton V. asplemen trichmany abrendant. Hterdim Sofrena 12 ogmasa

ellary

(nacturn

Lugarla

Deschanging

Stypheling

tom servel mattered

blope down is serul gradually increasing in lit. to 2 -3 m. down to Eluster of comer. feathered topling And cely any letma. Atating loss again as one are approached. Fide of them toward Analdai rather Namen, spans semb. On rea not more moint ofen low tehns Gorert mores on yound . every selve in scrub with figs bisystendrum are. Copros ernodivides abundant (it crate about 300 across and deep Veg. of Cyanes liftmas Hex? Ladleria, Dryopteri graleaced and a very long-leafer Dubantia

with some lehin; geranium close to Kapulehn 1-ing. Lta.

Kapulahin. 7500' ± 1

Xapulahin. 7500' ± 1

Xapulahin. 7500' ± 1

Collapse pit with great

mass of Xarolithia modules

consteel over cavith 10-15'

cm Pahoehoe

grassland of Pennisetum
of palrockor frow
as bare in places except
bor scottered lebrus
freshy slope on olde laws
first above highway
treathered by friest tres
Chin oahnense Drawense.
At Kanpulchy
Lome greevilles.

Read to Kona - havanne of Cernisetum with their fevilles to some matin heis, her effected land worth greatly grantles from freal. melinis.

fava on coastal feats black - flows very striking.

W5.2

alerandra yalon - ilan

For Waitins Trit - start early as frog cornes in after now.

Follow ditch trail around heads of valleys

Corne out at frue alaa

where cars can get in to edge of frest on Water authority

Road

State des. Frestry 5 jeeps Sistry Estate. 2 jeeps northrup Castle 1

the spen patchy lehus, barns. Holisto solle. Variable coffee.

Temple on it. Buddist Kailalus lift Macaranga manophylls Blighis safits on it. just before bospital. Kealchahus. furning of Hualalas Rd Up Keanton I, through coffee an lower slopes. into & Kahalun Forest Reserve, into wet frest of magnificent lehma, 6 40 m. with recording of Paystoting havairensi 20-25 m. much wet undergrowth. This mas a less the same to big cleaning perbates somewhat lower status of toward leaving. Topot, cleaning, at 3400; letra frest resumer, but become love. On up the road it is lower less epiphytes. To second cleaning. 3500? Here forest is much love, dense but with very open canopy because crowns one so manow. Epiphry tes all mon vascula, byothytes only in baral Im. or less of truits, crustore ground has a thick mon layer, with Lyropodium cernum and other ptendophytes. Should laye of Myssins. brochno distochophylla common. above this the firest rapidly diminished in height and

85,5

became more open, less mossy, with Coprosina emoderides and Pubnutia at 4260', The upper boundary of Keanhon, it has become a low open wordland not over a m. tall. By 4500 it has Decome a styphelia - Dodonasa -Vaccinium sent with scuttered 2.4 m. lehus. at 4550-4600 the mond gres over an an oflow with very thin and many spaine tehna, Exocapia, myrsine, topbora at 4700-4800' but very rand. at about 5000 the word enner out on the edge of a broad flat area of an orlow. deeper soil - grassy with from, Santalum pilgeri, Myopoun myrsing, etc ladly grazed. - then open grass, then fra-lehna savanne Thou spans lebra. The soil from here is al yellow how. lapilli somewhat larger than per size. Up sloter of styphelindedonnes serve with scattered tehny tophon, myopoum. Velosilianthapsus is ven abundat. This begins love and lower toma bit me comman

fantalum julgeri, occasional, Coprosono emoderides. Then up bill on lapilla beds. On such cones as the one east of Kannonsky, the scrub become more business, really trul fount. On labella beds a very mixed revel. at Uses' south of Kaummohn, on left Ind. sportacular and a "lavarive" or mawae, a grize, becoming a tube in places. In this luxuriant regitation of Atyphelia and some letina. Cones, beginning with Kambrushy less and less regetated, rather the at an flow partially buned with from fine lapitli. atabout 7150, n. w. of Portaling in they served un a mawas lined by spatter ramparts, a serub 1-1,5 m, tall, mixed geranium concetrum sonal plants new in other bushes anopen to somewhat dense, low to tall semb covers the passer and coner in the area from here to highest

suddle at just under 2013' on Pun Hualalai, n. e. of Harmon crater. On the west stope they are a very few lehvas, mostly a grain, lava stope with an open, but dying toplan just much planted Breakyplus to take its place, not very large. at about 1505 a small come harven little vegetation. The general aspect about this is straw serul, with almost nothing on a hondy lava flow at 7700. In the west slope between 7500 and wood the scrub remains about the same except to increase instatus till it is about 22m. tall, down to a cluster of small comes above the Kampulaha Flow. There, on the east side, as rather barren, in werd side a low but rather derse tehura frant. This at about 5700-6000. It about 5500' the regetation is an open serub, especially of ftyphelis with some scatterestating. attrich roft moss layers ground, lexymoticem are. lit crater.

From her down the road follows the Kanpelehn as flow, with spacefairly leting, the only under growth of politicof neptroletin. Very rough. This extends down it just above the telephone ratary station which is on grany to bare balrochoe. Xendeth station. Below this a grassland of Cenniselum in poliochod flow crosses a base as flow into more grand with scattered dry frest trees.

Hawaii, Husbalai Konf 1:7 (etd. from. b. 148) 1901 Hawaiian Xs. erect, somewhat revolute. belaginella mon indeals moss 4000 nume in offen metrosideros frest 41 Myrand March 21 - Keauhon no. 2, 4600 en Hualalai Rd. 43 Record originations & crecemen 100 erect should, m, tall, nal or an lara flow flowers and especially your in very spanse vegetation fruiting calyer rearlet. = 43 Execution gunichander & De 1 . M. 4750 low from like struly quetes occurional tipes maron; fruiting receptack globore, yellow, fruit menson. man. 29. Flats witheast of 5000 Waha Pele, Keauhou no. 2 strending tres 4 m. tall, Santalum eliption in pitrai common locally in savana leaver rather glossy, net dull yellowed green; flower greensh fragrant. 150 Mar. 22 Between Waha Pele and 5300 Pun Ihauha. in tall remb shout 3 m. tal, leave funtalum elliptiam on piqui 15 4 occurrences 11/27 mar or Southeast of warm let >100' Keauhou on 2. spreading tree 4 m. tall. Dodonnen viscosa orcanimal in open to soon soul

Hawaii, North Rong, Hualalai 7 Hawaiian In. May 22 - just south of Kanuadry 6500 in open sent on ass ting tufts. Zetramolopium 41658 Langled harbaceon vin, Sterrogyne flowers dronge trous. may in small lavy raving tangled an small motrorderos strul march 27 - Pass now, of Poilsali 7100 in serul in strallow rains 60 Tetramologium 61 Misetum growl catum wants) Tub. be Luzuly Lawriery Buch. 13 (quant = po 10 orlus commented. Holyns tomorchy durant shoul, sterile, or yeranium cureatum vai careatum leaves consistently green very local, in stiff shrubs on both reds. where goods court reach it. 65 agreement trickmanes desurroral in crevies is lave 66 afterior articles vigues now in crevice. flower bluid white. 67 Vermies sungilism . local, in desecrating port. mary 22 - East Analalai, below summit on sportly premie nave in small myopoum grove, grazel

Hawaii Hawaiian St. 41669 Conga bonamensis Livery nace con over lava slope 70 geranium caroliniamum on smitule (Beith) Porto prostrate. none on open grazed lava slote event rays white, order very 11 Tagetes commen sa grazed ravis walls - stong: spreading low Tray 4 m. tal. 72 My oporum sandroums brown we purple very small grove on high slope fragrant. 7) Helichnysum now in head of navin. should 3 m. Call: 74 Mysforum sandwiene fermes white, fragrant small grows on high stop grostrate. 75 Vermico plebeja R. P. race on grazed stope March 22 - Flat east of & from 7160 Gualdai prostrate, ble blush white. 16 Vermes capyelle is locally abundant is desiccated port 7890 Mas. 22 - soddly mostly of brighest point of I un Hualdlai glowers white. 77 Styphelin douglasse abundant march of small cont 6100 north of theef flation, Kanpulcher 79 graphatum japoniem none on bar soil. Mar. 27 - Cones at head of 7500 Kungruletin Love Flow 79 geranium enneutum var cumestum should ordentall, petals white. now in send

ofen partie with scattered of Dadonner

on light with low scrib of Dodonasa Dodonasa Dodonasa also in

139 Jobboroes send with some grass over large areas healtered Equentia, torre Lide Gallax.

85.9 Some grassy area, est below road. Permiselun Caching her. Nadly overgraged.

Fire patcher of send still, especially thin compared grass considerable of parties.

Vost level expanse of parties.

Angenome. Like.

Much Encalyptus planted around Waines geen pastures. Evealyptus and monterly Cyrrers wind breaks. Honey factory on it.

4 nto parture then gate kithings parture Ravines with Phus parture Ravines with Phus pasture on sides Past reservoir thing ate matin poest on it.

but with arancaira, Encalyptus planted on edges, Criptus vivin

Sadlink, Aphenomines on stock slagre en pasteur. Aporolooling el. demonant in pastine. Range on left with Con lahne found. Enler fruit gall Planton forest, some material things . Celeture freneng with glarchen. Entrature my bulgular send good of tolina, Chairodendrol, Ciroturos tadleva, etc. Enoughter along Tripe. how vegetation continues, with less disturbed appearance to edge of Waifin Pali. Then even lover and more definered and windswell regetation along edge to end of nord Approgram along road. at end of word small cleaning forturning cars this is lined with fadleria Millebandu, Cibotium of, glanciem tall should with trembling Leaves Cheinsdendon. On left side fracing waipis) gonldia term. r. franfranca Troussaisso orgente Ple inomale Vaccinim calycinum, Myrsin + spp.

and Metros deros. Cares early. along edge of ward splagnum boy, much factleria , abotion, very deprend most of range struks. Machanina anguitifiting. Cliarry weeky. across ditch at head of Valley - edge l'iptimes or grunding Dubantas of plantagner, Atengram, Edwar Clementin of Greens furt to fit or bring - grinning petaloide. woman down ever bali. along trans to left Hyperican japonione. agrantes m. 15 m. along Cyanes of westered on land Medera granaderis engelina in morning bank Alragnun line banks amall water orus. Cladinia on makes Vermica pleboja of webs and banks Patched Hedychina the

Gracy low send away from ditch - low metrocides alytims of glancing. allymen of posietienum Carex of sandureum Elaphoglonum gorgoneum fadle in helebrandie reperomos of. nertera Hymenofilyllum recurren thelypeline Eyespection conving. agreetting " Vicennin cal Viles of clumaefolis markeneren linear y Myrsine of lessertians Myran . Junius but. Chewdendien 1 - delin y and med Her immorely is it. Edward and . Friday. The second Jun-G- 19 - in ey hall my my -it francisco distintionally Marchaering angust.

general height 1-1.5 m. Prig working enemy when. Kavenes - taller veg Freet taller way born

On wa Brach sent in the country well south of Saddle Read get. is about 80% Dodonaly 20% Willstremis with or littly tide fallar. fine yellow and ash soil but withen this. other weeds thomas Velano bon. Opentio etc. Waltheria, none numerically important.

11.0 well developed dry fired. nost of the dry freet here

19:4 Reproblem (maker)

161 Pracadra (mobile) 172 Engthning, etc. (maker) Sambueus around many of house in brong, medicinal?

30.0 fet. Holulou - Kailur and.

323 Pet with Viliano Red afono Railin.

Thick Prospis freet. Prospis focally severan with Prospis and locally with farmances. same - in croded boggy slope where clay is soposed

4 15 Elevelians Fortune Will.) chills

4 16 fuzzola James plane 6. 15

2 17 Juneus buforing

man 23 - 2 mi s of finaling of Waimen - Kona Road with Faddle Road

parture

4 18 Sida

common

3 19 Wilstvernia

3 20 Dodonden viscores abundant, dominant

y 21 Wilsstreening

7 22 Dodonaen viseorg abundant, dominant tufted tufted malt tuft.

800m.

should 0.3 -04 m. tall.

should 0.7 m. tall; gruit red.

should 0.8 m. tall.

abundantly, quit red, globre, abundant quit, mit).

194Below of green ther some weed with hendulow buts xylone Solanum nigrum Tall brownish one Poule-Chyralis perierrare down greened town men Paloylog evition Exultine. Jantana caman Plumbary 3 to Fame bened to Correction aux a of alac no. any direction grahem color correspond cantava abundant bux (en neter mygelli Monridice Expandis in lad shape. ingthing your marian (3) Itellaria medio with alound ant I my tring Love nothocertuin. Crepression a Collection of general) miles ophsoner of. Emilia gavanue Congra bonarien amongunt below to a 1 Kennoldsig tree , room marelia Cattle have been Diaraeno unes dring considerable damage Ormantten rander. mascedlings or very young Vellam nephrolepe exaltata Photos of Engthning digenous glaves va. (smooth buds) they to it knows and all a found of and general defect. Junish A religion of the section shotos of general a perts 786 grove of Reynoldsia mandra of a genere. more of gen asport. 79.0 Jehotos of Prine Wie Was & in aller directions - My forest. former it court 79.1 Puraulou Selow X-ylowna ham. " 81.1 185,9 blow. Shortweeto Then a good fately of shower indies open dry frost, largely Hebricadelphia husbalains planted

1984127 Pohebulos aring Comp. alone Un ofren Lephora properum woodland with The Chamipodium and tursock grans. 13.7 Hunting Rodge and wienir gound. woodland howbly beatin. up by manuavery. 143 basia on night, their och, covered by scattered toblins and myopour with Chenopol. 15.4. new as frow 943ho vegetation. Aplina- Mysparen freit. 16.9 Good Sophia myofoun -18.6 Gnest just to left across an. 17-4-1974 Pahochoe flore on it. morran. 18.9 Hill with myof soun- Lobbon on left, four constituen. 190 highest point - an field. 19.7 Padly damaged Arthur My. Const 19.9 Pahoeline Gill. to left. 210 Hummela Kheep Ali. on left, photographen so damaged by graying.

Myorum

Con My Graying. Pun Halubulu on at. toest on I'm Hulutinely badly Sopling Ocacia bos Styphelia metrosideros

200Pahrehoe flat toward kil. as in put made with 21.91 less lehva woodland. 22.4 Fresh as field. Conflicated pottern of ag, pahochoe, and old blows with low samb. on flat in saddle. Degraded fruit to left, trass flows along rd. for some distance; Ato " many small bipulia with small letura and low serve a dway send. 24.7 fichers abundant on as flows. Pahoetroe with lichensy ferm. Then more as with lichen. 17-4-I want sent on loby. Februa Great across Clow's it. leting fruit on left. Marcand more veg. on ace dichens very thick tadlers Cepro. error. Volghod. fell. lehva (mall) Vaccinism. 30.0 (19 mi Hils) Amall lehua, 1-2 m. common. ferns more and pla me obundant. 30.6 Fino New Good l'atch of taller fred not. more and more tall front. for but more and mer developed. Glichama. Tall boart on it,

33.0 moraie of lowopen and tall, rather dense freit. 73.5 Open low bust with gleralienia + Lidlaria Thus for some miles. 35,0 stop. Open smul street of lehna n-4 m. tall, with gleichenia, Rywhodium cernuum, Machaerina angustifolia. Copromy my Ltyphelia (1) Chrosona ernod, eyenmemprement)
In places the machaining is dominant in grundleyer, in place Herchania. Hedystis glomerala badle is exatheredes Dubantia scaba (?) Hypochalis radicate intrail! On ropy pahoelior. Covers ground completely. (142 mi. alove Hilo) Honald back of place on it, & trail into wood. Taller borest on left:) 37. Tall denn lehne frest with well developed libotium lage of left. then lower, langled with flerebena. 37. i aben fenn-machaeving will scattered believe androprogen along ad. Thechens is barter down, home how.

20220 rent brokelet .. Dwight E. Walker . Palva, Hawaii Harland a arabi Pertax 41.1 - cleared in regrowth. parche of beg. watcher ofbein lehia mitty over degraded finest or open and. 421 Rhuzjavania on left. Machaenine with wattered small cehve. 42.4 Whelastone. 43.2 but home. sterre small believe in left. open with glackening or machacing on it 43.87 michet of mallehing and garabeni. 44.2 (Hilo outstriets.) Kaumana Cone on deft quais bound on it Kammara felort. Care bield 45.6) (Earmann caves, Johns dens box 955 973 cane belds quais thickets.

